

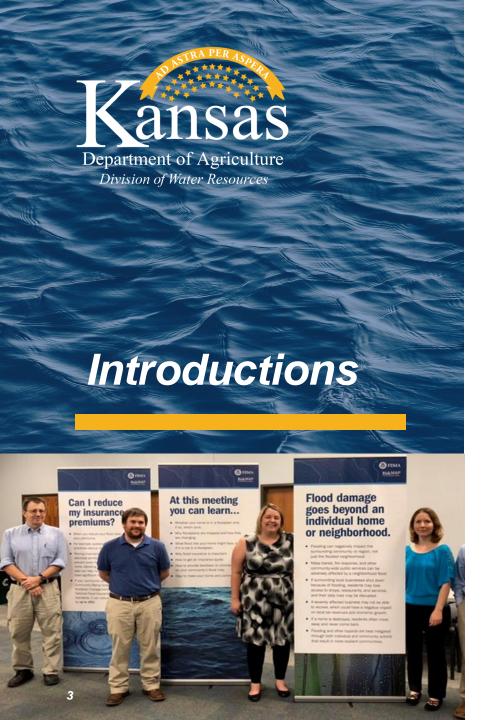


AECOM



Your engagement in this process is important to the success of this project, so thank you for taking the time to be here today!





### **Kansas Department of Agriculture**

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FEMA – Region VII

Dawn Livingston

Regional Project Officer

**AECOM Technical Services, Inc.** 

**Dan Curley**Project Manager

Hayden Edwards
Engineer



# Today's Goals

Share details on the mapping project

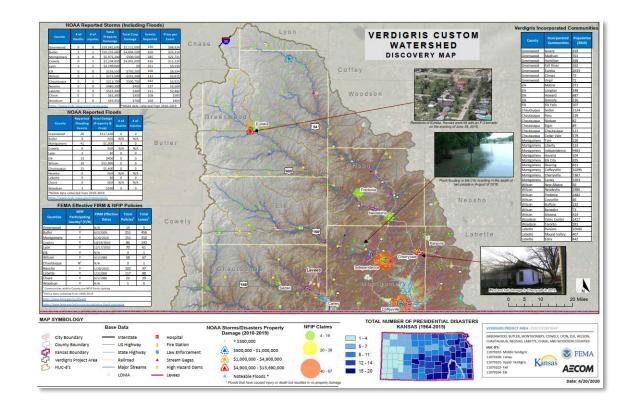
Get initial feedback on modeling methods

Review future steps



# **Background**

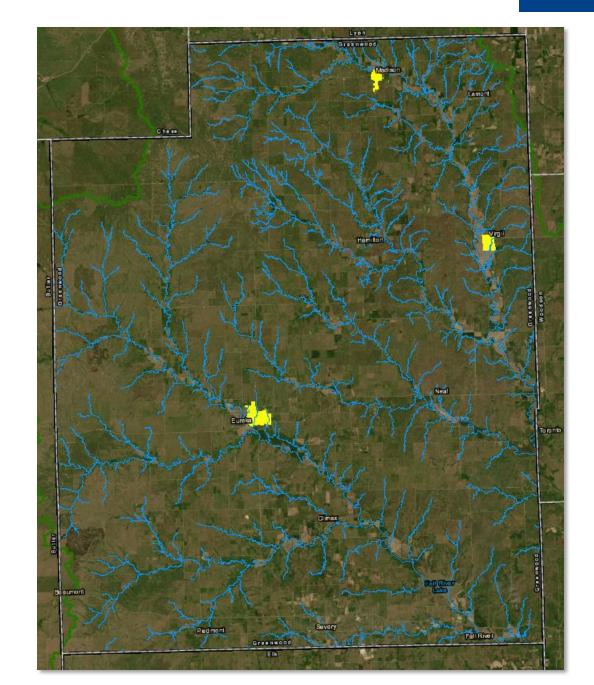
- Verdigris Custom Watershed BLE Project
  - Kick-off Meeting: January 2020
  - Discovery Meetings and BLE Review: April May 2020

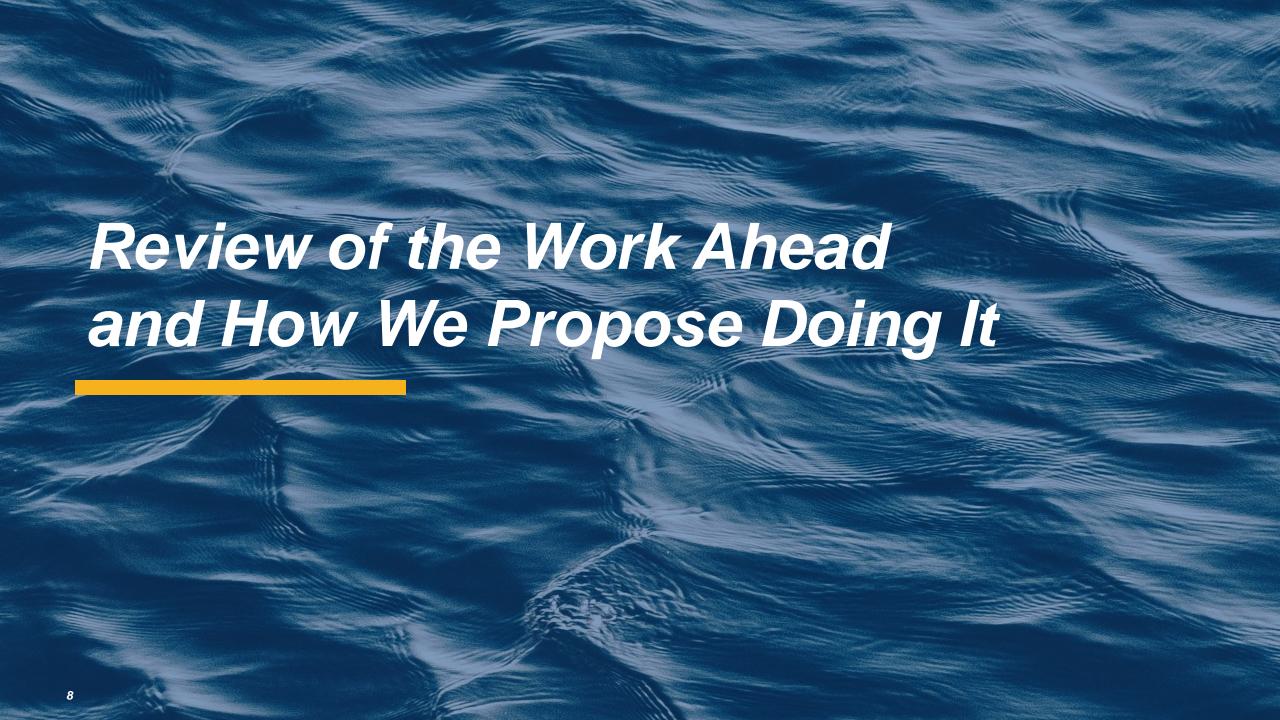




# **Background**

- First-time Countywide
  - Current Effectives:
    - Eureka 1991 –
    - Madison 1990 –
    - Virgil 1986





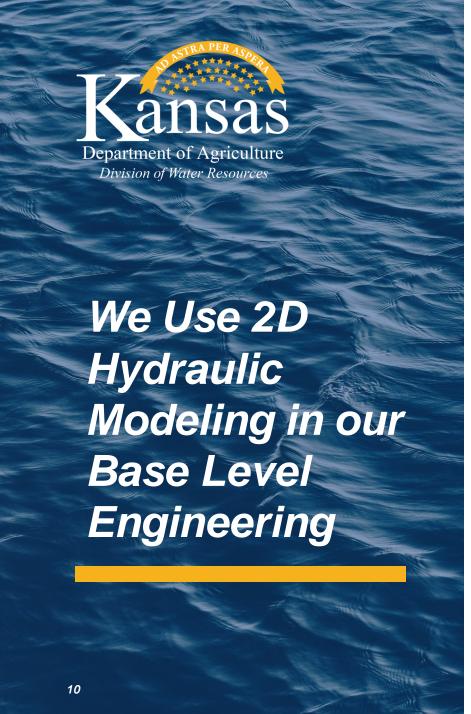
### **Definitions**



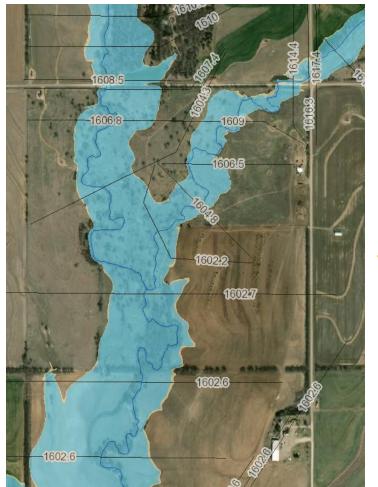
**Hydrology** *How Much Water?* 

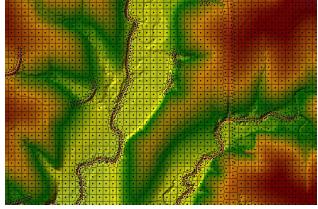


Hydraulics
How High Will Water Get?

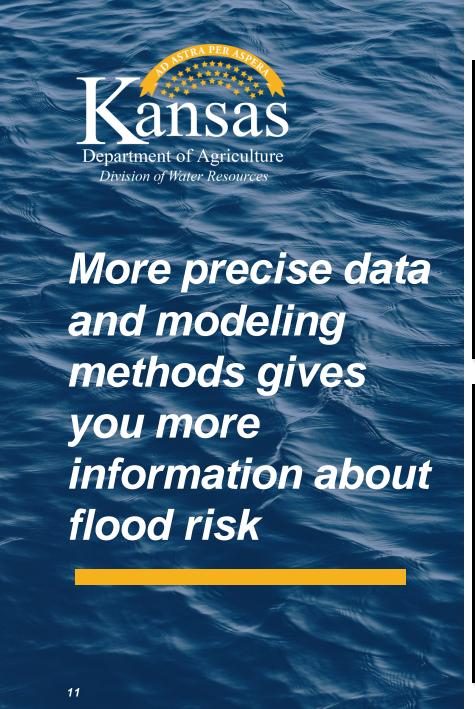


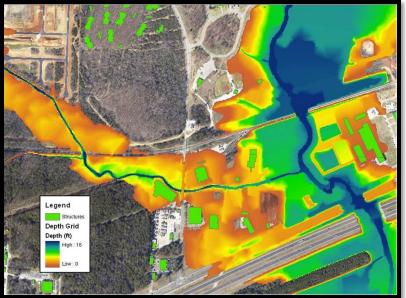
The current maps are done with onedimensional (1D) modeling. Two-dimensional (2D) modeling will be used for the new modeling.

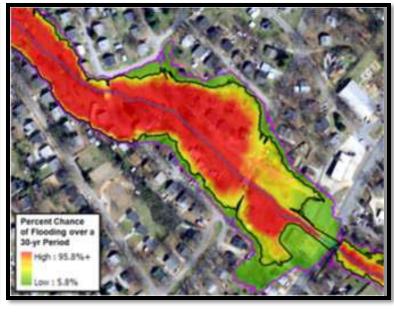






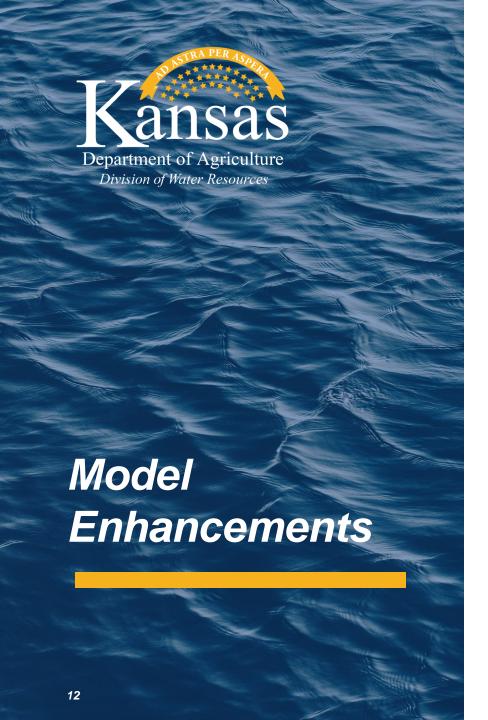




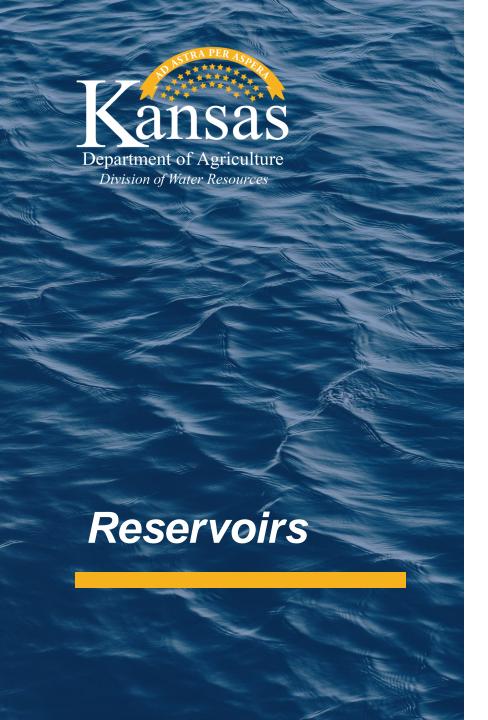






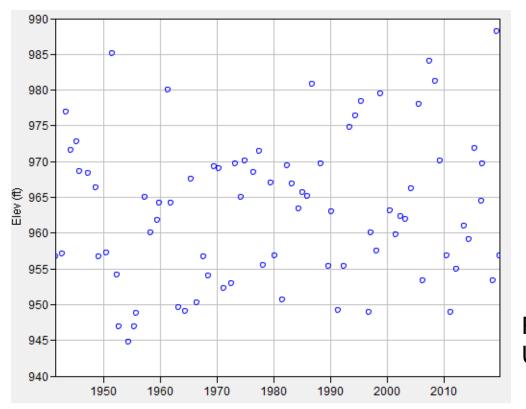


- Enhancements can be made to the BLE modeling that was performed.
  - New Lidar, flown in 2018, will be incorporated.
  - Comments made and additional information gathered during the Discovery and Data Development phase can be used to enhance the modeling.
  - With your feedback additional review/refinement of mesh can be done to improve accuracy of modeling.



Two large reservoirs that impact Greenwood County will be further studied to increase accuracy

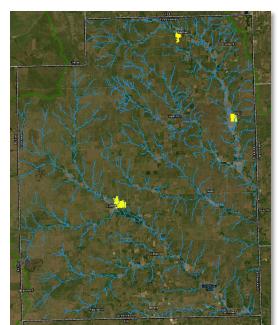
- Toronto Lake and Fall River Lake
- Incorporate USACE Tulsa District historical data to determine 1% and 0.2% Annual Chance Water Surface Elevation
- Apply Static Elevation in SFHA Mapping



Fall River Lake USACE WSEL

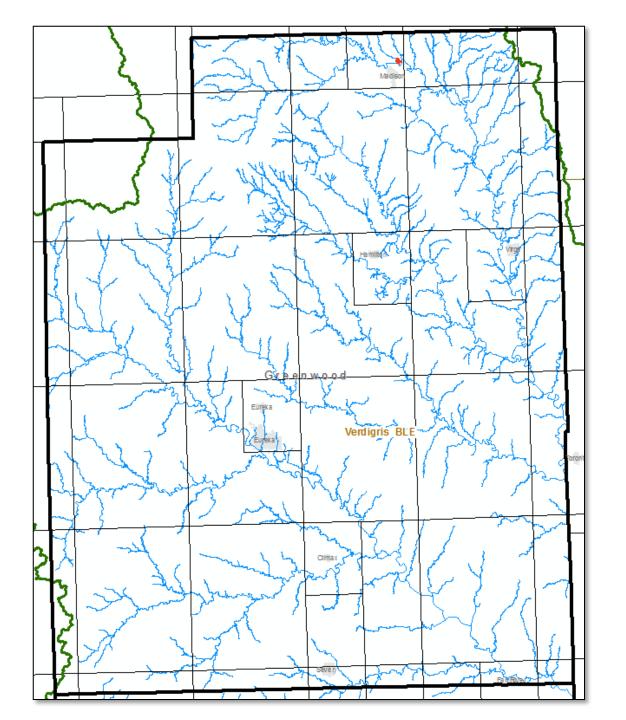


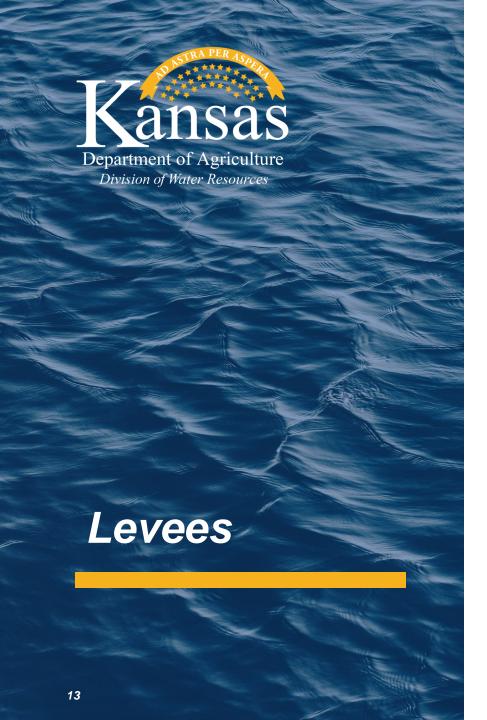
- All Zone A 2D BLE (1,314 mi.)
- 42 FIRM Panels
- Non-Accredited levee (Verdigris River, near Madison)



#### **Current Effectives:**

- Eureka 1991
- Madison 1990
- Virgil 1986





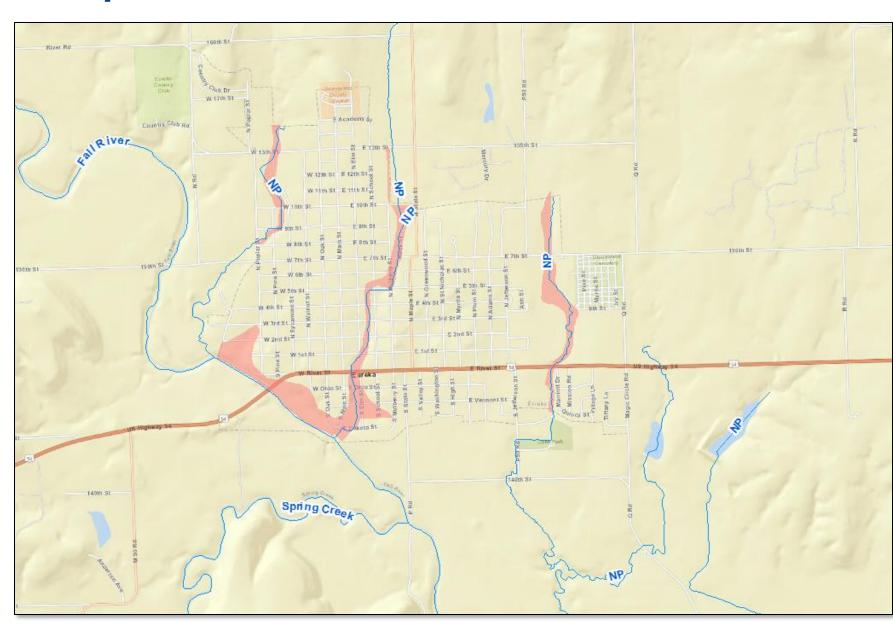
There are 2 non-accredited levees in the project area. These levees will be considered hydraulically insignificant.

Non-Accredited levee (Verdigris River, near Madison)



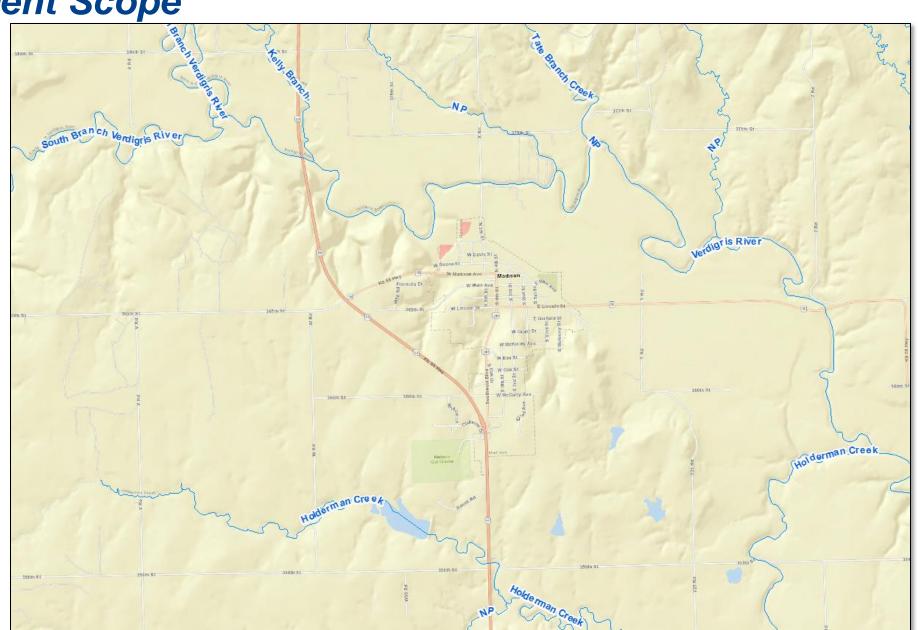
City of Eureka

Effective Zone A



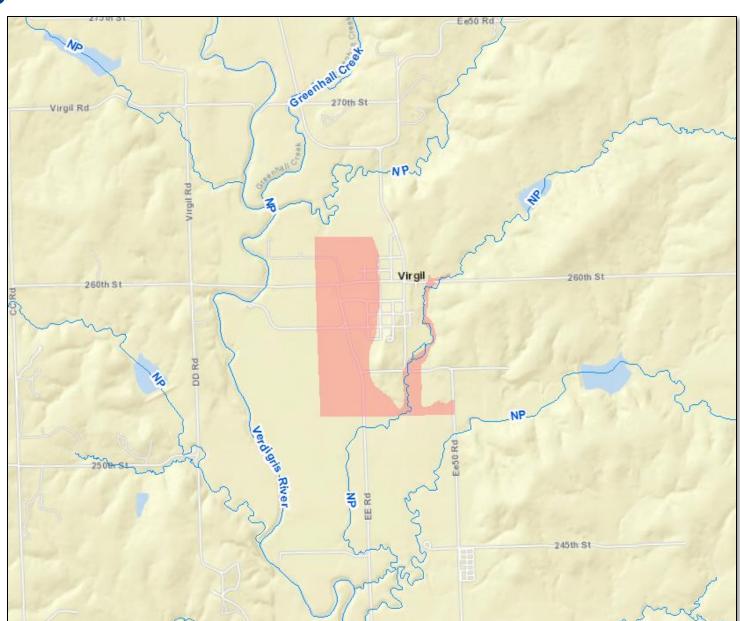
City of Madison

Effective Zone A



City of Virgil

Effective Zone A





# Field Survey Base Map Terrain **Data** Collaborative Partnerships **Development** Updated Hydrologic and Hydraulic Modeling Floodplain Mapping **DFIRM Production** Post-Processing Map Adoption

### **Project Tasks**

- 1. Base Map and Topography Preparation
- 2. Hydrologic and Hydraulic Modeling
- 3. Floodplain Mapping
- 4. DFIRM and FIS Production
- 5. Post-Preliminary

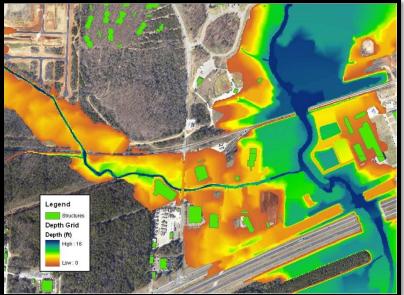
We are about to begin the modeling task

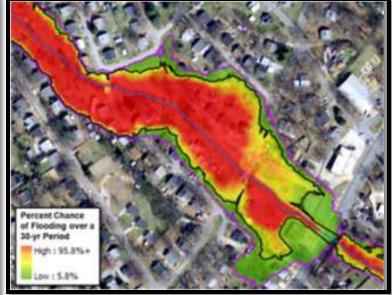


- We will complete the engineering analysis previously described.
- Several rounds of reviews will be completed.
- We will develop your draft regulatory floodplain maps.
  - Also known as your Flood Insurance Rate Map (FIRM)
- We will develop your draft Flood Insurance Study (FIS).
- We will have a community review period and a public review period



 We will also be developing flood risk products for Greenwood County as part of this project.





# **Project Timeline**

# Kick-off Meeting and Initial Community Feedback: [TODAY!]

# Data Development Work: [Spring – Summer 2022]

- Base Map
- Topographic Data
- Develop Hydrologic and Hydraulic Models
- Floodplain Mapping

# Flood Risk Review Meeting:

- [~ Sept 2022]
- Your review and feedback on the draft maps

# Project Timeline, continued

Community comments will be addressed

Public review of the draft mapsIncludes Public

Open House

# Preliminary Map Products

Preliminary DFIRM Community Coordination Meeting Post-Preliminary Processing









# Key Takeaways

### Floodplain Mapping Projects take time

Your involvement in this process will result in better flood information for your community

### DON'T HESITATE TO CALL, WE ARE HERE TO HELP



# Online Project Information

#### **Project Website**

- Scoping Maps, Project Timeline, Meeting Presentations, Newsletters, Technical Reports, Web Review Map
- https://agriculture.ks.gov/divisions-programs/dwr/floodplain/mapping/mapping-projects/

### Web Review Map

- Provide comments on areas impacted by past floods, community needs, etc.
- Review of floodplain data

### **Story Maps**

- Project Info
- "Floodplain Current": Mapping Process 'Nuts and Bolts'

